David B Janes

List of Publications by Year
in descending order

52 papers	1,453 citations	331670 21 h-index	315739 38 g-index
52 all docs	52 docs citations	52 times ranked	2348 citing authors

#	Article	IF	Citations
1	Development of Interdigitated Capacitive Sensor for Real-Time Monitoring of Sub-Micron and Nanoscale Particulate Matters in Personal Sampling Device for Mining Environment. IEEE Sensors Journal, 2020, 20, 11588-11597.	4.7	3
2	Experimental and modeling study of 1/<i>f</i> noise in multilayer MoS2 and MoSe2 field-effect transistors. Journal of Applied Physics, 2020, 128, .	2.5	4
3	Molybdenum Contacts to MoS 2 Fieldâ€Effect Transistors: Schottky Barrier Extraction, Electrical Transport, and Lowâ€Frequency Noise. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900880.	1.8	5
4	Transitions between channel and contact regimes of low-frequency noise in many-layer MoS2 field effect transistors. Applied Physics Letters, 2019, 114, 113502.	3.3	6
5	Design, Fabrication, and Characterization of a Compact Hierarchical Manifold Microchannel Heat Sink Array for Two-Phase Cooling. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1291-1300.	2.5	34
6	Transient Thermal Response of Hotspots in Grapheneâ€“Silver Nanowire Hybrid Transparent Conducting Electrodes. IEEE Nanotechnology Magazine, 2018, 17, 276-284.	2.0	6
7	On-chip microelectrode array and in situ transient calibration for measurement of transient concentration gradients near surfaces of 2D cell cultures. Sensors and Actuators B: Chemical, 2018, 260, 519-528.	7.8	8
8	Reversible phase-change behavior in two-dimensional antimony telluride (Sb2Te3) nanosheets. Applied Physics Letters, 2018, 112, 133101.	3.3	17
9	A hierarchical manifold microchannel heat sink array for high-heat-flux two-phase cooling of electronics. International Journal of Heat and Mass Transfer, 2018, 117, 319-330.	4.8	231
10	Correlating Electronic Transport and 1/ <i>f</i> Noise in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Mo</mml:mi><mml:mi>Se</mml:mi></mml:mrow><mml:mn>2</mml:mn></mm Field-Effect Transistors. Physical Review Applied, 2018, 10, .	3.8	7
11	Real-time characterization of uptake kinetics of glioblastoma vs. astrocytes in 2D cell culture using microelectrode array. Analyst, The, 2018, 143, 4954-4966.	3.5	4
12	Transient Self-Heating at Nanowire Junctions in Silver Nanowire Network Conductors. IEEE Nanotechnology Magazine, 2018, 17, 1171-1180.	2.0	7
13	Characterization of hierarchical manifold microchannel heat sink arrays under simultaneous background and hotspot heating conditions. International Journal of Heat and Mass Transfer, 2018, 126, 1289-1301.	4.8	91
14	Evidence of Universal Temperature Scaling in Self-Heated Percolating Networks. Nano Letters, 2016, 16, 3130-3136.	9.1	11
15	Copercolating Networks: An Approach for Realizing High-Performance Transparent Conductors using Multicomponent Nanostructured Networks. Nanophotonics, 2016, 5, 180-195.	6.0	11
16	Low-frequency noise in MoSe2 field effect transistors. Applied Physics Letters, 2015, 106, .	3.3	47
17	Super-Joule heating in graphene and silver nanowire network. Applied Physics Letters, 2015, 106, .	3.3	42
18	Single-Layer Graphene as a Barrier Layer for Intense UV Laser-Induced Damages for Silver Nanowire Network. ACS Nano, 2015, 9, 11121-11133.	14.6	59

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19	1/<i>f</i> Noise in MoS₂ Field Effect Transistors with Various Layer Thicknesses. Materials Research Society Symposia Proceedings, 2014, 1701, 13.	0.1	1
20	Optical characteristics of vertically aligned arrays of branched silver nanowires. , 2014, , .		1
21	Low-Frequency Noise Contributions From Channel and Contacts in InAs Nanowire Transistors. IEEE Transactions on Electron Devices, 2013, 60, 2900-2905.	3.0	22
22	Transconductance Linearity Analysis of 1-D, Nanowire FETs in the Quantum Capacitance Limit. IEEE Transactions on Electron Devices, 2013, 60, 2071-2076.	3.0	8
23	Coâ€Percolating Grapheneâ€Wrapped Silver Nanowire Network for High Performance, Highly Stable, Transparent Conducting Electrodes. Advanced Functional Materials, 2013, 23, 5150-5158.	14.9	223
24	Temperature dependence of current and low-frequency noise in InAs nanowire transistors. , 2013, , .		1
25	Red-green-blue light sensitivity of oxide nanowire transistors for transparent display applications. AIP Advances, 2013, 3, .	1.3	6
26	Low-frequency noise in contact and channel regions of ambipolar InAs nanowire transistors. , 2012, , .		0
27	Nanoscale contacts between semiconducting nanowires and metallic graphenes. Applied Physics Letters, 2012, 101, 063122.	3.3	12
28	Role of Self-Assembled Monolayer Passivation in Electrical Transport Properties and Flicker Noise of Nanowire Transistors. ACS Nano, 2012, 6, 7352-7361.	14.6	48
29	1/f Noise Sources in Dual-Gated Indium Arsenide Nanowire Transistors. IEEE Transactions on Electron Devices, 2012, 59, 1980-1987.	3.0	12
30	Room temperature device performance of electrodeposited InSb nanowire field effect transistors. Applied Physics Letters, 2011, 98, .	3.3	31
31	Molecular modulation of Schottky barrier height in metal-molecule-silicon diodes: Capacitance and simulation results. Journal of Applied Physics, 2010, 107, 024505.	2.5	15
32	Electrodeposition of Indium Antimonide Nanowires in Porous Anodic Alumina Membranes. , 2010, , .		1
33	Gold/Molecule/p$^+$ Si Devices: Variable Temperature Electronic Transport. IEEE Nanotechnology Magazine, 2010, 9, 494-503.	2.0	8
34	Characterization of electrochemically grafted molecular layers on silicon for electronic device applications. Journal of Applied Physics, 2009, 105, 073512.	2.5	10
35	Transparent driving thin-film transistor circuits based on uniformly grown single-walled carbon nanotubes network. , 2009, , .		0
36	Chalcogenide-Nanowire-Based Phase Change Memory. IEEE Nanotechnology Magazine, 2008, 7, 496-502.	2.0	49

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37	Germanium Antimonide Phase-Change Nanowires for Memory Applications. IEEE Transactions on Electron Devices, 2008, 55, 3131-3135.	3.0	30
38	Aligned single-walled carbon nanotube thin-film transistor arrays for transparent electronics. , 2008, , .		0
39	Organic-Inorganic Flexible and Transparent Electronics. , 2008, , .		1
40	1âˆ•f noise of SnO2 nanowire transistors. Applied Physics Letters, 2008, 92, 243120.	3.3	53
41	High performance In2O3 nanowire transistors using organic gate nanodielectrics. Applied Physics Letters, 2008, 92, 222105.	3.3	34
42	Comparative passivation effects of self-assembled mono- and multilayers on GaAs junction field effect transistors. Applied Physics Letters, 2008, 92, 123509.	3.3	18
43	In situ Structural Characterization of Metalâˆ'Moleculeâˆ'Silicon Junctions Using Backside Infrared Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 14021-14026.	3.1	30
44	High performance In<inf>2</inf>O<inf>3</inf> nanowire transistors using organic gate nanodielectrics. Device Research Conference, IEEE Annual, 2007, , .	0.0	0
45	Metal molecule GaAs devices using redox-active organic self-assembled monolayers. , 2007, , .		0
46	Indium selenide nanowire phase-change memory. Applied Physics Letters, 2007, 91, .	3.3	94
47	N-Type Field-Effect Transistors Using Multiple Mg-Doped ZnO Nanorods. IEEE Nanotechnology Magazine, 2007, 6, 390-395.	2.0	23
48	Barrier height modulation and dipole moments in metal-molecule-silicon diodes. , 2007, , .		0
49	Effect of contact properties on current transport in metal/molecule/GaAs devices. Journal of Applied Physics, 2006, 99, 024510.	2.5	21
50	Metal/molecule/p-type GaAs heterostructure devices. Journal of Applied Physics, 2006, 100, 024503.	2.5	26
51	Device structure for electronic transport through individual molecules using nanoelectrodes. Applied Physics Letters, 2005, 87, 233509.	3.3	50
52	Enhanced current densities in Auâˆ•moleculeâˆ•GaAs devices. Applied Physics Letters, 2004, 85, 2809-2811.	3.3	32